

# **APPENDIX B**

**RECLAMATION'S BIOLOGICAL EVALUATION**

**and**

**FISH AND WILDLIFE SERVICE'S  
CONCURRENCE**

JUL 15 2005

PXAO-1500  
ENV-7.00

MEMORANDUM

To: Mr. Steven Spangle, Field Supervisor, Fish and Wildlife Service, 2321 West Royal Palm Road, Suite 103, Phoenix, Arizona 85021

From: Carol Lynn Erwin **CAROL LYNN ERWIN**  
Area Manager

Subject: Concurrence Request for Effects Determination on Proposed Southwestern Willow Flycatcher Habitat Acquisition on the Gila River

Component 1c of the Reasonable and Prudent Alternative in the 1996 Biological Opinion on the modifications to Roosevelt Dam requires Reclamation to establish a Southwestern Willow Flycatcher (*Empidonax traillii extimus*) (willow flycatcher) management fund.

Use of this \$1.25 million fund includes, but is not limited to, additional habitat acquisition, conservation easements on riparian and adjacent habitats, fencing of riparian areas to exclude livestock, physical habitat restoration such as riparian plantings, and cowbird trapping or predator control. The fund cannot be used for research projects, administrative costs, or long-term management associated with funded management activities. We believe the best use of this fund is to acquire habitat for willow flycatcher protection.

Salt River Project's (SRP) 2002 Roosevelt Habitat Conservation Plan (RHCP) requires additional acquisition and management of riparian habitat and incorporates Reclamation's requirements from the 1996 Biological Opinion.

In 2004, Reclamation and SRP began jointly pursuing acquisition and management of willow flycatcher properties to partially fulfill their respective Sections 7 and 10 compliance requirements. SRP staff began discussions with willing sellers on the Gila River in Graham County. On October 4, 2004, Fish and Wildlife Service (Service) biologists, Mr. Greg Beatty and Mr. Jason Douglas, accompanied Reclamation and SRP staff to evaluate a potential property for willow flycatcher habitat. The group decided this property was suitable for willow flycatchers and worth pursuing for acquisition.

The approximately 700-acre property is located within the Gila River floodplain in Graham County, about 3 miles southeast of Fort Thomas, and just north of U.S. Highway 70 (see attached map). Under the proposed action, Reclamation would purchase the property, remove trash and debris, and fence the property to manage human use and exclude livestock. Reclamation and SRP would enter into an agreement under which SRP would take over management of the

subject property to benefit the willow flycatcher in perpetuity. On-site monitoring would be conducted to help protect the property from habitat degradation resulting from unauthorized recreational activities or accidental fire. A fire management plan that complies with the RHCP requirements would be developed that includes fire prevention and recovery procedures. SRP would conduct willow flycatcher and yellow-billed cuckoo surveys beginning in 2006.

Habitat. There are two primary vegetative communities found along the upper Gila River--Sonoran Riparian Scrubland and Sonoran Riparian Deciduous Forest and Woodland communities, both of which are found on the property.

The Sonoran Riparian Deciduous Forest and Woodland community consists primarily of streamside vegetation such as Fremont cottonwood (*Populus fremontii*) and Goodding willow (*Salix gooddingii*) (Brown 1994). Along the upper Gila River and within the project area, this cottonwood-willow vegetation exists within the floodplain in the form of small patches and narrow stringers. In general, this vegetative community also includes velvet and/or honey mesquite (*Prosopis velutina* or *Prosopis glandulosa*) and some exotic saltcedar (*Tamarix ramosissima*).

Where upstream water use and associated floodplain alterations have reduced the amount and timing of flows, the Sonoran Riparian Scrubland community has replaced much of the formerly lush Sonoran Riparian Deciduous Forest and Woodland vegetation along the upper Gila River. This community consists of dense riparian and desertscrub species, with riparian vegetation dominating the stream channel. Plant species are shorter in stature than in the Sonoran Riparian Deciduous Forest and Woodlands community, which is a function of more arid conditions (Brown 1994).

Along the upper Gila River, and within the project area, the Sonoran Riparian Scrubland community is now dominated by saltcedar. Replacement of native vegetation with saltcedar occurs where native vegetation has been removed, flows and spring floods have declined, the water table has dropped, and salinity is high (Brown 1994, Horton et al. 1960, Horton 1977, Turner 1974, Warren and Turner 1975). Activities leading to this habitat conversion include water diversions and impoundments, groundwater pumping, flood control, agriculture, grazing, fire, and fuel-wood cutting (Brown 1994).

A complete plant inventory has not been conducted on the subject property; however, common shrub species within the Sonoran Riparian Scrubland community are seepwillow (*Baccharis salicifolia*), arrowweed (*Pluchea* sp.), and burrobrush (*Hymenoclea monogyra*). Thickets of saltcedar may be accompanied by quailbush (*Atriplex lentiformis*), desert broom (*Baccharis sarothroides*), and mesquite (*Prosopis velutina*, *Prosopis glandulosa* var. *torreyana*) in less-disturbed sites. Small patches and narrow isolated willow and cottonwood trees are interspersed.

No farming occurs on any of the property. The area is heavily vegetated with saltcedar and other riparian plant species, including some cottonwood and willow (see attached photos). Naturally occurring flood events will continue to scour out riparian vegetation in the floodplain, regardless of whether natural or exotic vegetation exists. Periodic floods are expected to remove existing vegetation and woody debris, deposit sediment and seeds, and promote regeneration. This

natural cycle is important for riparian plant succession and riparian-dependent wildlife species such as willow flycatchers.

Listed Species. The Service lists 17 species that are endangered, threatened, or proposed for listing in Graham County (Service <http://arizonaes.fws.gov>, March 2005). The two federally endangered species potentially occurring within the project area are the willow flycatcher and razorback sucker (*Xyrauchen texanus*). The remaining 15 species would not be found within the project area due to lack of suitable habitat and/or because the current range for the species is outside the project area: Apache trout (*Oncorhynchus apache*), Arizona cliffrose (*Purshia subintegra*), bald eagle (*Haliaeetus leucocephalus*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), California brown pelican (*Pelecanus occidentalis californicus*), Chiricahua leopard frog (*Rana chiricahuensis*), Gila chub (*Gila intermedia*), lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*), loach minnow (*Tiaroga cobitis*), Mexican gray wolf (*Canis lupus baileyi*), Mexican spotted owl (*Strix occidentalis lucida*), Mount Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*), and spikedace (*Meda fulgida*). The endangered desert pupfish (*Cyprinodon macularius*) and Gila topminnow (*Poeciliopsis occidentalis occidentalis*) occur outside the Gila River floodplain, approximately 1 mile away from the project area where both species were introduced in 1985. The project area currently is not considered suitable habitat for either of these species due to the presence of nonnative, predatory fishes.

Willow Flycatcher. The southwestern subspecies of the willow flycatcher was listed as endangered, effective March 29, 1995 (60 FR 10694). The property is within the proposed willow flycatcher critical habitat designation (69 FR 60706). The Willow Flycatcher Recovery Plan (recovery plan) divides the Southwest into six Recovery Units, which are further subdivided into Management Units. The project area is located within the Upper Gila Management Unit in the Gila Recovery Unit, which has a goal of 325 territories (FWS 2002). The greatest number of territories documented in a single year within this Management Unit was 262, in 1999 (69 FR 60723). The property is located midway between two of the largest known populations within the Gila River drainage. One population is located on the Gila River in New Mexico, near the towns of Cliff and Gila. The second is located in Arizona on the lower San Pedro River south of Mammoth downstream to Winkelman, and from Winkelman downstream to Kelvin on the Gila River.

Only a small proportion of suitable habitat has been surveyed on the Gila River from the New Mexico border downstream to the eastern border of the San Carlos Indian Reservation in recent years. In 2005, several willow flycatcher territories were found on SRP property adjacent to the property proposed for acquisition. Although this proposed property has not been surveyed, we believe it is highly likely that willow flycatchers are present. Willow flycatchers were also found on lands administered by the Bureau of Land Management near Geronimo and Fort Thomas in 2005 (personal communication, Heidi Kuska, Bureau of Land Management, July 6, 2005). Data are still being collected and an exact count will not be available until the field season is completed.

The willow flycatcher breeds in riparian habitats along rivers, streams, or other wetlands, where patchy to dense trees and shrubs are established, usually near or adjacent to surface water or

saturated soil (FWS 2002). Plant species composition and height vary across the geographical range of this species, but occupied habitat usually consists of a mosaic of dense patches of vegetation, often interspersed with small openings, open water, or shorter/sparser vegetation. Dense vegetation usually occurs within the first 10 to 13 feet above ground. Willow flycatchers can occupy habitat within 3 to 5 years of a flood event (Paradzick and Woodward 2003). Periodic flooding and habitat regeneration are important to the recovery of this species.

In Arizona, willow flycatchers now nest predominantly in saltcedar. Ninety percent of willow flycatcher nests found between 1993 and 2000 in Arizona were in saltcedar (Paradzick and Woodward 2003). Of 462 willow flycatcher nests monitored in Arizona in 2004, 298 were in saltcedar, 129 were in Goodding willow, 24 were in Fremont cottonwood, and the remaining nests were in other tree species (Munzer et al. 2005). Nesting substrate in the upper Gila River in Arizona is primarily saltcedar and willow, with some seepwillow and cottonwood.

Nest success, female productivity (number of young fledged per female), and survivorship for willow flycatchers using saltcedar-dominated habitat were at least as successful as in other plant species (FWS 2002, Sogge et al. 2005).

Razorback Sucker. The razorback sucker was listed as endangered on October 23, 1991 (56 FR 54957). The property lies within designated critical habitat for this species (59 FR 13379). Adult razorback suckers use quiet backwater areas and river channel habitats. Radio telemetry on adults released into the Verde River showed that the fish used pools and other slow water areas and avoided riffles (Clarkson et al. 1993). Telemetry studies from other locations have shown that some razorback suckers will make extensive up and downstream movements while others will remain in the same immediate area.

The razorback sucker is endemic to the Colorado River Basin. It formerly occurred in all major rivers and larger streams in the basin and was once the most widespread and abundant of the basin's "big-river" fishes. Razorback suckers completely disappeared from the Gila River by 1960 (Hendrickson 1993).

The main causes of the species' decline are introductions of nonnative fishes and human-caused habitat modifications such as dam construction, irrigation, diversions, and channelization. Today, populations in the Lower Colorado River Basin are found in Lakes Mohave, Havasu, and Mead and the lower Colorado River below Lake Havasu. The most recent razorback sucker record closest to the project area was from the mid-1990s, about 30 miles upstream of the project area in Bonita Creek (personal communication, Rob Clarkson, Reclamation, March 4, 2005).

From 1981 to 1990, more than 12 million larval and juvenile razorback suckers were stocked into historic habitats in Arizona and California, including the Gila, Salt, and Verde rivers (Hendrickson et al. 1993). More than 1,100,000 of these razorback suckers were reintroduced into the Gila River and its tributaries upstream of San Carlos Reservoir, including Bonita Creek (Hendrickson 1993). No populations of razorbacks appear to have been established in any areas where they were reintroduced, and little evidence has been found of individuals persisting for more than a few months (SWCA 1998). Predation by nonnative fishes such as channel catfish

and largemouth bass are likely the primary cause of the failure of this species to re-establish (Marsh and Brooks 1984; Minckley et al. 1991).

Effects Determination. We do not believe that acquisition of this property will affect the aquatic habitat of the razorback sucker. In addition, currently proposed management activities will also have no effect on the Gila River. Due in part to the presence of nonnative predatory fish and degraded habitat, it is unlikely that razorback suckers inhabit the Gila River within the project area. We therefore have determined that the proposed acquisition would have "no effect" on the razorback sucker or its critical habitat.

Acquisition of this property would protect approximately 700 acres of riparian habitat that we believe may be occupied by the endangered willow flycatcher. The management plan for this property would contribute toward the recovery plan goal of establishing conservation management agreements that provide for long-term willow flycatcher habitat (Service 2002). Protecting property within this Management Unit would help ensure there is suitable habitat geographically located in a way that allows for willow flycatcher movement within and between drainages, consistent with recovery plan objectives. It is our determination that the proposed acquisition "may affect, but is not likely to adversely affect" the willow flycatcher. Any effects from this action will be beneficial.

We would appreciate receiving written concurrence from the Service on this determination and approval of the acquisition. Although 50CFR 402.12(J) requires written concurrence to an action agency's effects determination within 30 days, we would appreciate the Service expediting this request so we can conclude the National Environmental Policy Act process. Timely conclusion of this process will help ensure that acquisition of the property is successful. If you have any questions, please contact Ms. Susan Sferra at 602-216-3855.

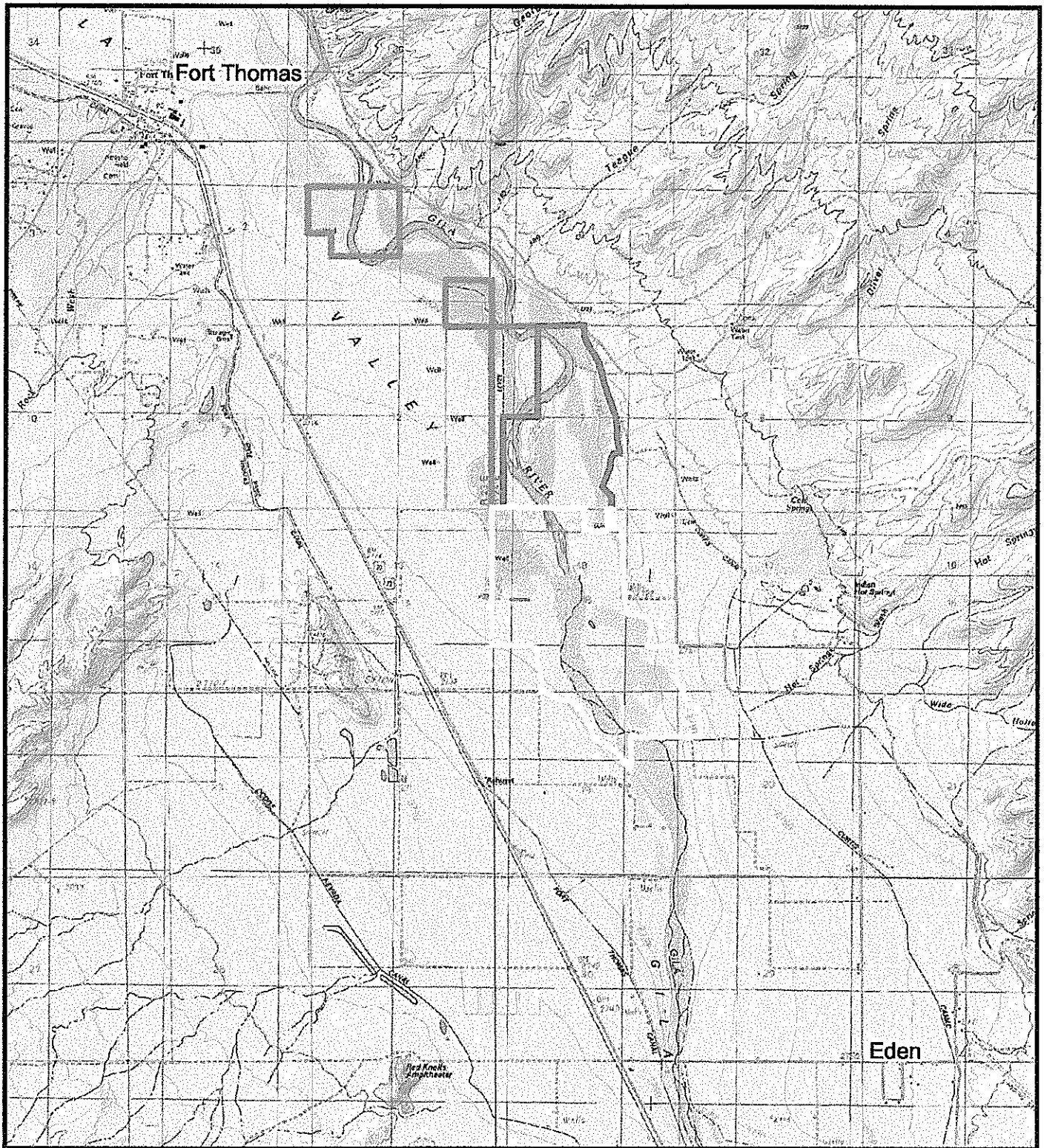
Attachments 3

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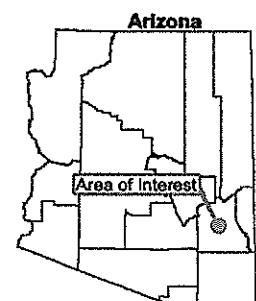


## Proposed Acquisition

-  USBR Potential Acquisition
-  SRP Fee Holdings
-  SRP Conservation Easement

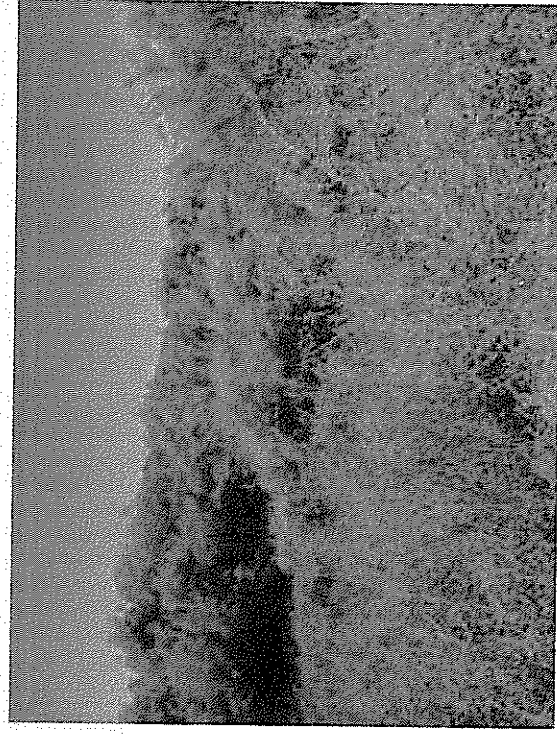
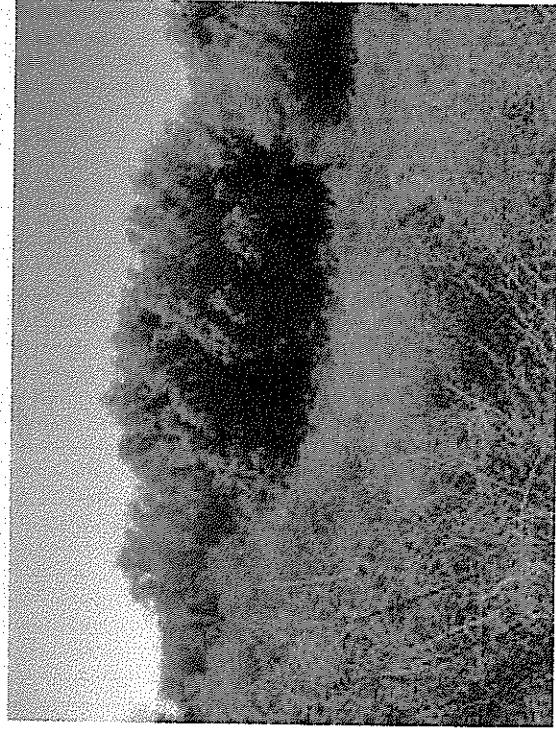
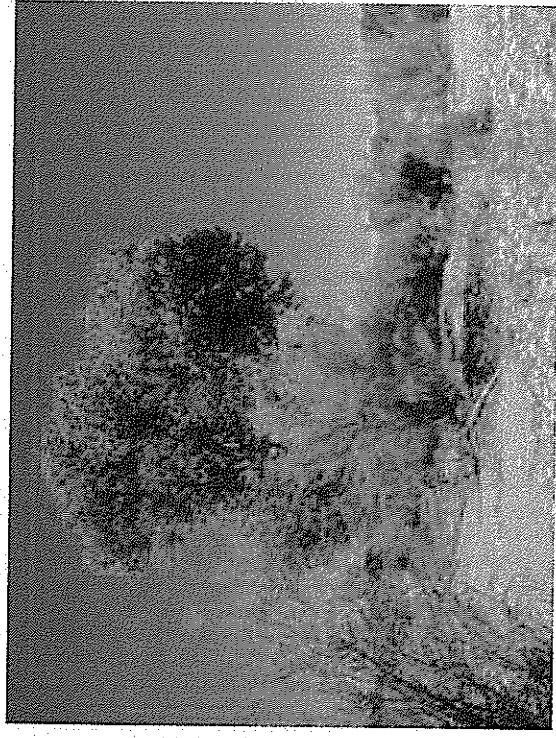
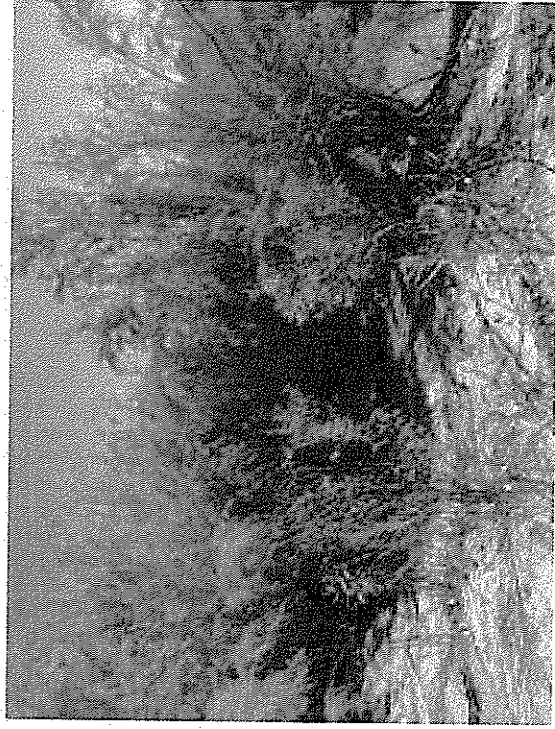


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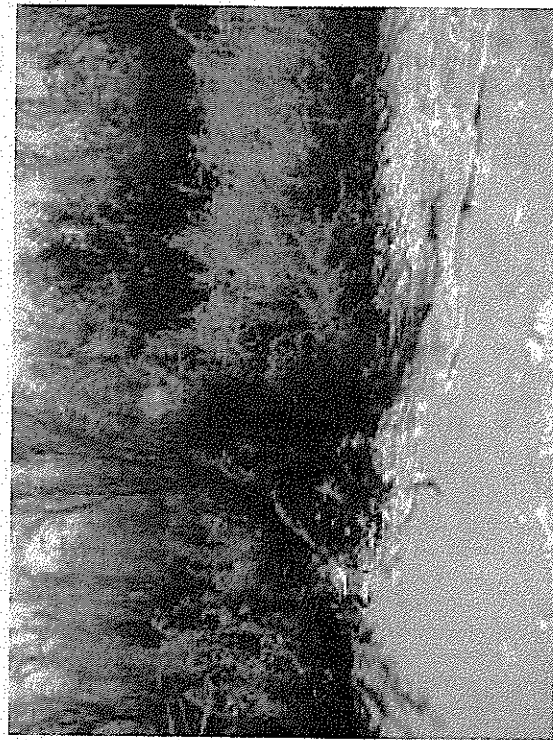
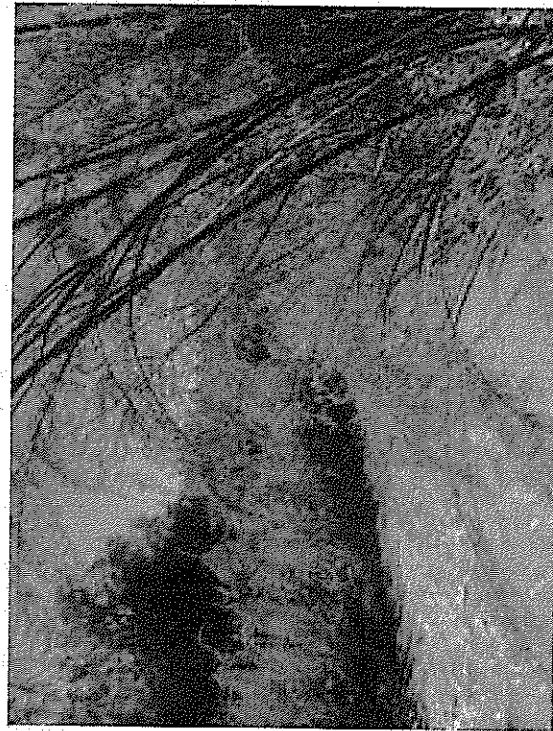
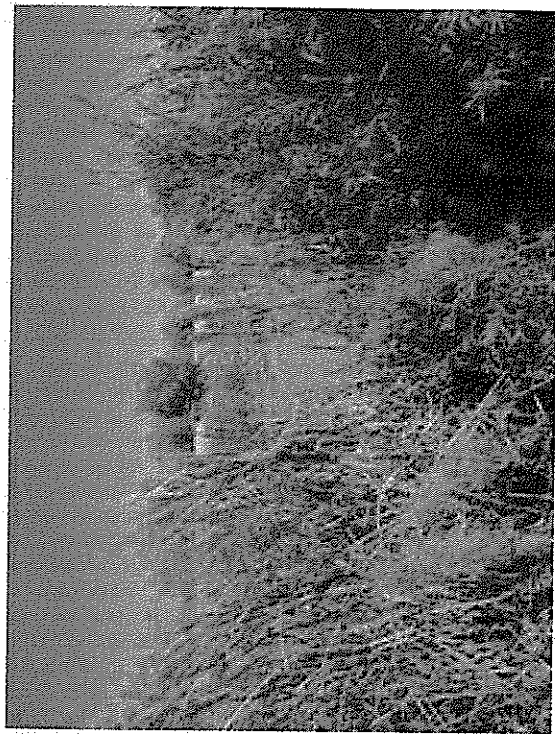
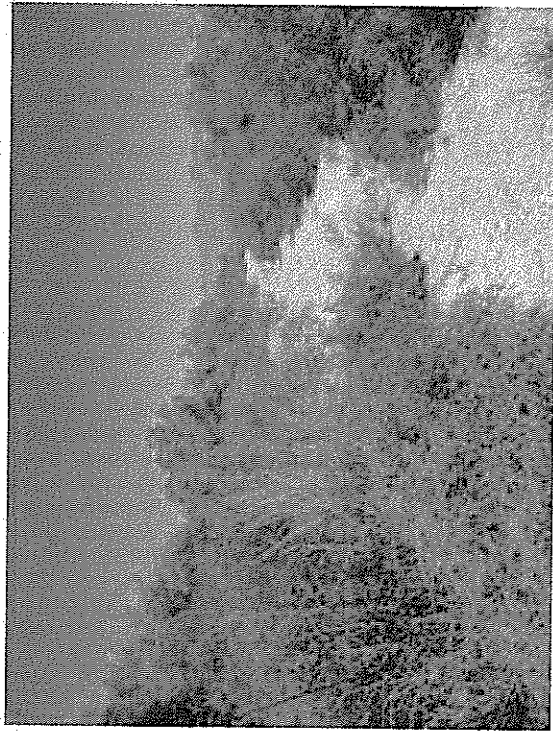


# Proposed Acquisition





# Proposed Acquisition



**United States Department of the Interior**

**U.S. Fish and Wildlife Service**  
**2321 West Royal Palm Road, Suite 103**  
**Phoenix, Arizona 85021-4951**  
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In Reply Refer to:

AESO/SE  
02-21-05-I-0583  
02-21-95-F-0462  
02-21-03-F-0003

July 19, 2005

Memorandum

To: Phoenix Area Manager, Bureau of Reclamation, Phoenix, Arizona

From: Field Supervisor

Subject: Informal Section 7 Consultation on the Southwestern Willow Flycatcher Habitat Acquisition on the Gila River near Fort Thomas, Graham County, Arizona

This transmits our response to your July 14, 2005, electronic mail request (File number PXAO-1500, ENV-7.00) for our concurrence that the proposed acquisition of approximately 700 acres of Gila River floodplain in Graham County, about 3 miles southeast of Fort Thomas, and just north of U.S. Highway 70 (proposed action), may affect, but is not likely to adversely affect the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) (flycatcher). This response is provided in accordance with the requirements of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

**Background**

The proposed action implements Component 1(c) of the Reasonable and Prudent Alternative in our July 17, 1996, *Final Biological Opinion for the Modified Roosevelt Dam and Its Effects of the Endangered Southwestern Willow Flycatcher* (*Empidonax traillii extimus*) and Responses to Reclamation's Comments on Draft Biological Opinion (File number 02-21-95-F-0462), which requires the Bureau of Reclamation (Reclamation) to establish and expend a flycatcher management fund. Salt River Project's (SRP) 2002 Roosevelt Habitat Conservation Plan (RHCP) requires additional acquisition and management of riparian habitat, and incorporates Reclamation's requirements from the 1996 Biological Opinion.

The action proposed by Reclamation involves: (1) purchase of the Gila River property; (2) removal of trash and debris from the site; and (3) fencing of the property to manage human use and exclude livestock. The trash and debris removal and fence construction will occur during the flycatcher non-breeding season (personal communication, Susan Sferra, Reclamation, July 18, 2005). Though not part of the currently-proposed action, Reclamation and SRP will

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Phoenix Area Manager

subsequently enter into an agreement under which SRP would take over management of the subject property to benefit the flycatcher in perpetuity.

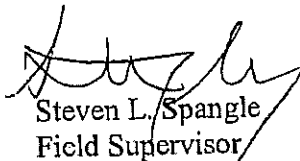
**Determination of Effects**

Biologists from my staff, Greg Beatty and Jason Douglas, accompanied Reclamation and SRP staff to evaluate the Fort Thomas property for flycatcher habitat on October 4, 2004. No farming presently occurs on any of the property. The area is heavily vegetated with tamarisk/saltcedar (*Tamarix ramosissima*) and other riparian plant species, including some Fremont cottonwood (*Populus fremontii*) and willow (*Salix* spp.). Although this proposed property has not been surveyed, we believe it is highly likely that flycatchers are present. In 2005, several flycatcher territories were found on SRP property adjacent to the property proposed for acquisition. Flycatchers were also found on lands administered by the Bureau of Land Management near Geronimo and Fort Thomas in 2005 (personal communication, Heidi Kuska, Bureau of Land Management, July 6, 2005). Data are still being collected on the adjacent properties and an exact count will not be available until the field season is completed.

We concur with your determination that the proposed action may affect, but is not likely to adversely affect, the flycatcher for the following reasons: (1) the acquisition portion of the proposed action is primarily ministerial in nature; and (2) on-the-ground disturbance - construction of fencing and removal of debris - will occur at a time when potentially-present flycatchers are not breeding on the site; and (3) the site will serve the long-term conservation needs of the flycatcher. The proposed action is thus considered wholly beneficial. We anticipate reviewing the SRP management plan for the site when such a document has been prepared.

Should you require further assistance or if you have any questions, please contact Jason Douglas at (520) 670-6150, (x226); or Sherry Barrett at (520) 670-6150, (x223). Thank you for your continued efforts to conserve endangered species.

Sincerely,



Steven L. Spangle  
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ  
Southwestern Willow Flycatcher Coordinator, Bureau of Reclamation, Phoenix, AZ

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